WHAT IS CLAIMED IS:

1. A durable radio frequency identification tag, comprising:

a flexible substrate including a first major surface and a second major surface opposite the first major surface;

a radio frequency identification antenna attached to the first major surface of the substrate;

an integrated circuit attached to the antenna; and

a thermoplastic guard attached to the flexible substrate adjacent the integrated circuit.

2. The durable radio frequency identification tag of claim 1, further comprising a first layer of adhesive attached to the substrate.

3. The durable radio frequency identification tag of claim 1, wherein the integrated circuit has a first height measured from the first major surface of the flexible substrate, and wherein the thermoplastic guard has a second height measured from the first major surface of the flexible substrate, and wherein the second height is greater than the first height.

4. The durable radio frequency identification tag of claim 3, wherein the second height is at least 1.25 times larger than the first height.

5. The durable radio frequency identification tag of claim 1, wherein the guard does not extend over the integrated circuit attached to the flexible substrate.

6. The durable radio frequency identification tag of claim 1, wherein the thermoplastic guard is comprised of a first rail and a second rail, wherein the first rail and second rail are substantially parallel to each other with the integrated circuit located between the first rail and second rail.

7. The durable radio frequency tag of claim 6, wherein the first rail and second rail are continuous lines.

8. The durable radio frequency tag of claim 6, wherein the first rail and second rail are made from a plurality of portions.

9. The durable radio frequency identification tag of claim 1, wherein the thermoplastic guard is in the shape of an annulus, and wherein the integrated circuit is located within the annulus.

10. The durable radio frequency identification tag of claim 1, wherein the thermoplastic guard is made from a plurality of sections, and wherein the sections are arranged to form a shape of an annulus, and wherein the integrated circuit is located within the annulus.

11. The durable radio frequency identification tag of claim 1, wherein the thermoplastic guard is in the shape of a polygon, and wherein the integrated circuit is located within the polygon.

12. The durable radio frequency identification tag of claim 1, wherein the thermoplastic guard is made from a plurality of sections, wherein the sections are arranged to form a shape of a polygon, and wherein the integrated circuit is located within the polygon.

13. The durable radio frequency identification tag of claim 1, wherein the flexible substrate has an overall thickness of between 25 microns and 100 microns.

14. The durable radio frequency identification tag of claim 1 further comprising a flexible cover layer attached to the thermoplastic guard and to the substrate.

15. The durable radio frequency identification tag of claim 14 further comprising a second layer of adhesive between the flexible cover layer and the flexible substrate.

16. The durable radio frequency identification tag of claim 1, wherein pressure of at least at about 1 MPa is applied to the durable radio frequency identification tag adjacent the thermoplastic guard, and subsequently the integrated circuit may be read by an interrogator.

17. The durable radio frequency identification tag of claim 1 further comprising a liner attached to the first layer of adhesive opposite the substrate.

18. A tire in combination with the durable radio frequency identification tag of claim 1, wherein a layer of adhesive attaches the durable radio frequency identification tag to a tire.

19. The tire in combination with the durable radio frequency identification tag of claim 18, wherein the durable radio frequency identification tag is attached to an outer sidewall of the tire.

20. A pallet in combination with a durable radio frequency identification tag of claim 2, wherein the first layer of adhesive attaches the durable radio frequency identification tag to the pallet.

21. A box in combination with a durable radio frequency identification tag of claim 2, wherein the first layer of adhesive attaches the durable radio frequency identification tag to the box.

22. The box in combination with a durable radio frequency identification tag of claim 21, wherein the durable radio frequency identification tag is attached to an outside surface of the box.

23. The box in combination with a durable radio frequency identification tag of claim 21, wherein the durable radio frequency identification tag is attached to an inside surface of the box.

24. A passport in combination with a durable radio frequency identification tag of claim 2, wherein the layer of adhesive attaches the durable radio frequency identification tag to the passport.

25. A passport in combination with a durable radio frequency identification tag of claim 1, wherein the durable radio frequency identification tag further comprises a flexible cover layer, wherein the flexible cover attaches the durable radio frequency identification tag to the passport.

26. A document in combination with a durable radio frequency identification tag of claim 2, wherein the layer of adhesive attaches the durable radio frequency identification tag to the document.

27. A continuous roll of durable radio frequency tags, wherein a plurality of durable radio frequency tags of claim 1 are attached to one another.

28. The roll of durable radio frequency identification tags of claim 27, wherein the thermoplastic guard is comprised of a first rail and a second rail, wherein the first rail and second rail are substantially parallel to the length of the roll.

29. A durable radio frequency identification tag, comprising:

a flexible substrate including a first major surface and a second major surface opposite the first major surface;

a radio frequency identification antenna attached to the first major surface of the substrate;

an integrated circuit attached to the durable radio frequency identification tag; and

a thermoplastic guard attached to the flexible substrate adjacent the integrated circuit;

wherein an interrogator may read the integrated circuit after a pressure of at least 1 MPa is applied to the durable radio frequency identification tag.

30. The durable radio frequency identification tag of claim 29, wherein the integrated circuit has a first height measured from the first major surface of the flexible substrate, and wherein the thermoplastic guard has a second height measured from the first major surface of the flexible substrate, and wherein the second height is greater than the first height.

31. The durable radio frequency identification tag of claim 30, wherein the second height is at least 1.25 times larger than the first height.

32. The durable radio frequency identification tag of claim 29, wherein the guard does not extend over the integrated circuit attached to the flexible substrate.

33. The durable radio frequency identification tag of claim 29, wherein the thermoplastic guard is comprised of a first rail and a second rail, wherein the first rail and second rail are substantially parallel with the integrated circuit located between the first rail and second rail.

34. The durable radio frequency tag of claim 33, wherein the first rail and second rail are continuous lines.

35. The durable radio frequency tag of claim 33, wherein the first rail and second rail are made from a plurality of portions.

36. The durable radio frequency identification tag of claim 29, wherein the thermoplastic guard is in the shape of an annulus, and wherein the integrated circuit is located within the annulus.

37. The durable radio frequency identification tag of claim 29, wherein the thermoplastic guard is made from a plurality of sections, and wherein the sections are arranged to form a shape of an annulus, and wherein the integrated circuit is located within the annulus.

38. The durable radio frequency identification tag of claim 29, wherein the thermoplastic guard is in the shape of a polygon, and wherein the integrated circuit is located within the polygon.

39. The durable radio frequency identification tag of claim 29, wherein the thermoplastic guard is made from a plurality of sections, and wherein the sections are arranged to form a shape of a polygon, and wherein the integrated circuit is located within the polygon.

40. The durable radio frequency identification tag of claim 29, wherein the flexible substrate has a thickness of between 25 microns and 100 microns.

41. The durable radio frequency identification tag of claim 29 further comprising a first layer of adhesive attached to the substrate.

42. The durable radio frequency identification tag of claim 41 further comprising a liner attached to the first layer of adhesive opposite the substrate.

43. The durable radio frequency identification tag of claim 29 further comprising a flexible cover layer attached to the thermoplastic guard and to the flexible substrate.

44. The durable radio frequency identification tag of claim 29 further comprising a second layer of adhesive between the flexible cover layer and the flexible substrate.

45. A tire in combination with the durable radio frequency identification tag of claim 29, wherein a layer of adhesive attaches the durable radio frequency identification tag to a tire.

46. The tire in combination with the durable radio frequency identification tag of claim 29, wherein the durable radio frequency identification tag is attached to the outer sidewall of the tire.

47. A pallet in combination with a durable radio frequency identification tag of claim 29, wherein a layer of adhesive attaches the durable radio frequency identification tag to the pallet.

48. A box in combination with a durable radio frequency identification tag of claim 29, wherein a layer of adhesive attaches the durable radio frequency identification tag to the box.

49. A box in combination with a durable radio frequency identification tag of claim 41, wherein the durable radio frequency identification tag is attached to an outside surface of the box.

50. A box in combination with a durable radio frequency identification tag of claim 42, wherein the durable radio frequency identification tag is attached to an inside surface of the box.

51. A passport in combination with a durable radio frequency identification tag of claim 41, wherein the layer of adhesive attaches the durable radio frequency identification tag to the passport.

52. A document in combination with a durable radio frequency identification tag of claim 41, wherein the layer of adhesive attaches the durable radio frequency identification tag to the document.

53. A method of manufacturing a durable radio frequency identification tag, comprising the steps of:

providing a flexible substrate containing an antenna on at least one surface of the flexible substrate;

attaching an integrated circuit to the antenna; and

extruding a thermoplastic guard onto the substrate adjacent the integrated circuit.

54. The method of claim 53 further comprising the step of:

forming a roll of durable radio frequency tags.

55. The method of claim 54 as wherein the extruding step includes extruding a thermoplastic guard comprising at least two rails in a direction parallel to the direction of unwinding and winding of the roll.

56. A durable radio frequency identification tag made by the method of claim 53.

57. The method of claim 53, further including the step of:

applying a layer of adhesive on the flexible substrate.

58. The method of claim 57, further including the step of:

providing a liner and attaching the durable radio frequency identification tag to the liner with the layer of adhesive.